

**New Jersey Department of Transportation
Bureau of Research
Guidelines for Preparing and Reviewing
Budgets and Invoices**

INTRODUCTION

This Guide is intended as a general resource for the development and evaluation of detailed budgets and invoices in accordance with CFR 49 parts 18 & 19, OMB Circulars A-21, A-110, A-122, A-133, Commercial Organizations Subcontractor FAR 48CFR, Subpart #31.2, 23 CFR 420, 23U.S.C.505 and State of NJ Travel Policy OMB Circular Letter #00-10-OMB. Detailed proposals usually include a definitive budget for each period (year) of a proposed project, a cumulative budget for all years or periods, and a budget narrative giving justification for key cost elements. These general guidelines will be supplemented by the specific instructions pertaining to budgetary and financial information provided below. A variety of information resources, printed or electronic, are available to assist you in the preparation of a particular budget. Please refer to the reference section at the end of this Guide. Budget developers are referred to *the NJDOT Instructions and Information for Preparing Proposals*. A budget narrative explaining individual budget elements should accompany the budget schedules.

Note budgets should be prepared and reviewed with the following general guidelines in mind:

1. Are the expenses being charged reasonable and necessary for the successful completion of the project?
2. The NJDOT research project manager should be realistic and understand that risks can and will exist.
3. The NJDOT research project manager should recognize that it is unreasonable to achieve perfect compliance. The goal is to minimize risk.
4. The research organization should make every effort to achieve compliance.
5. The research organization should constantly evaluate the effectiveness of their compliance efforts.
6. The principal investigator together with the NJDOT research project manager should work together to mitigate risk.

DEFINITIONS

Direct costs: Those categories that have clearly identified cost elements designated by type or function. These types include personnel and non-personnel items. These costs are specifically itemized in the budget, justified in the proposal, detailed and documented in the invoice.

Indirect costs: Institutional or infrastructure categories that are apportioned a cost factor based on federal guidelines for allowable cost elements. Costs are typically

expressed as a rate, based on a pool of direct cost items, for example, Modified Total Direct Costs (MTDC). See page 8

Personnel: A detailed cost element reflecting a salary or wage basis paid to each class of individual employed on a project. All salaries for personnel are expressed as a percentage of effort. Personnel classifications include faculty (Principal Investigator, Co-Principal Investigator), other faculty, technical support staff, administrative/clerical staff, and various types of trainees (post-doctoral fellows, graduate students, research associates).

Fringe Benefits: Non-cash compensation provided to employees pertaining to mandated or institutional provisions. Examples, usually expressed as percentage of the wage or salary base, reflect a composite rate that includes incremental factors for social security, health insurance, liability insurance, workman's compensation and related factors.

Equipment: Allowable when equipment is necessary and will be primarily, or exclusively used, for the project(s) to which the costs will be charged. Defined as non-expendable, physical assets having a useful life of one or more years and a minimum unit cost of \$1,000. Examples include computers and peripheral devices and scientific instrumentation. Computer equipment is usually defined to include the necessary system software intrinsic to the operation of the system.

Consultant costs: Defined as non-institutional employees retained for a short duration of time for their expertise. Typically, consultants are paid a cost plus fixed fee (CPFF), per federal guidelines. Otherwise, an appropriate fee for a limited term of service commensurate with the market or specialty.

Supplies: Any category of expendable material required as an essential inventory item for the conduct of a particular project. May include scientific or laboratory supplies, laboratory materials, chemicals and other disposable items.

Two Broad Categories:

1. Project supplies-used exclusively for the support-allowable direct charges
2. Office supplies -such as wall clocks calendars, waste cans paper punches, university letterhead, staplers that would likely be used for other purposes are allowable indirect charges.

Travel: Travel costs are the expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the institution directly related to the task order responsibilities.

Alterations and renovations: Specific facilities costs required to modify or update dedicated space for the planned project. General construction costs are typically not supported.

Other expenses: Itemized by category

- Alcoholic beverages- Unallowable
- Alumni/development activity -Unallowable
- Donations and contributions -Unallowable
- Entertainment costs -Unallowable
- Fines and penalties -Unallowable
- Good and services for personal use- Unallowable
- Losses on federal projects-cost overruns from one project may not be transferred to another project- Unallowable
- Memberships in civic or community organizations, country clubs, or social/dining clubs -Unallowable

- Costs of memberships in professional organizations and associations that directly benefits Federal projects are allowable, subject to the following:
 - 1.The payment of dues for institutional memberships (not on behalf of/or in the name of an individual faculty or staff member) is allowable.
 - 2.Occasionally, it is necessary to pay individual membership dues in order to obtain reduced entry to meetings. When documented, the portion of the individual membership dues related to reduced meeting fees is allowable.
 - 3.Under special circumstances, individual memberships may be allowed on an annually- approved basis if essential to a research project. Specific approval by the Manager, Bureau of Research or designee is required.

- Postage-recovered through the indirect cost rate. However , large mailings of postage charges may be allowable as a direct cost.

- Pre- agreement costs unallowable unless approved by NJDOT through a letter to incur costs.

- Professional Services-consultant and speakers are allowable charges to sponsored agreements.

Consortium or Contractual Costs: A cost item that is the aggregate value of project performance or service to be rendered by other institutional partners. These aggregate charges must in turn be supported by detailed cost breakouts for each collaborating institution..

Cost sharing: Virtually any type of arrangement in which more than one party supports research, equipment acquisition, demonstration projects, programs, and institutions. Some federal programs require cost sharing, i.e., some contribution, usually at a nominal rate, to total project costs by the institution. Usually, cost sharing takes the form of contributed time for project personnel, already paid by unit accounts. Project PIs are cautioned that mandatory cost sharing will be audited, so that documentation must be as clear as for the NJDOT-portion of the budget. The ledger source to be charged the “real dollar” matching funds must be clearly identified.

All sources of cost sharing and matching must be identified at the proposal stage. It is the responsibility of the PI to solicit and obtain cost sharing commitments. The PI must also determine how these resources will be used to benefit the project.

NJDOT and the Research Organization consider all cost-sharing or matching funds included in a proposal as firm commitments. These commitments must be fully documented and verifiable to the NJDOT and the Research Organization. The PI is responsible for providing necessary documentation.

APPLICABLE COST PRINCIPLES

Specific federal guidelines pertain to the definition, use, and calculation of costs for sponsored programs. Overall cost principles (definitions and usage) are detailed, exhaustively in Office of Management and Budget (OMB) Circular No. A-21, the “gold standard” for costing regimens with U.S. government agencies and State agencies using Federal money.. Standards of consistency and uniformity for the implementation of the A-21 cost principles are covered in a companion circular, No. A-110. Essentially, this circular serves as an *interpretation guide* for the usage and boundary conditions of costing for *grant* awards. Future updates to this on-line *Guide* will provide additional information. In addition, the applicable federal regulations are accessible on-line at

<http://www.whitehouse.gov/OMB/circulars/index-education.html>

Guidelines for Budget Preparation and Evaluation

The following are general guidelines for preparing and reviewing a budget, which is acceptable to the NJDOT. Figures 1 and 2 provide formats for budget and subcontractor details.

Salaries and Wages:

The budget detail must include the name, hourly rate and period (# of hours) for each person listed on the budget.

Salary calculations: The following chart will be used for the budget preparation.

Period*		Weeks	Days	Hours
1 work month		4.3	22	176
Academic Year (AY)	Aug. 16 thru May 15	39.0	195	1560
Calendar Year (CY)	Jan. 1 thru Dec. 31	52.0	260	2080
Fiscal Year(FY)	July 1 thru June 30	52.0	260	2080
Summer (3 months)	May 16 thru Aug 15	13.0	65	520

****Based on 8hours/day and 40 hours per week***

Salary calculation is based on hours

Fringe Benefits:

Each research organization will provide the NJDOT Bureau of Research with their negotiated indirect cost, fringe benefit and tuition schedule annually by September 1. The document must contain sufficient detail to identify what items are included and not included in these schedules.

Fringe Benefits are calculated according to the Indirect Cost Rate Agreement for the research organization negotiated with the Department of Health and Human Services (the cognizant federal audit agency), and may include the following:

FICA	Life Insurance	Unemployment insurance Retirement
Workers' compensation	Health Insurance	Sabbatical -Faculty Other
Disability insurance	Child Care subsidy	

*Tuition Remission may be included in fringe or as a direct expense, but not both.

Direct Costs:

These costs are specifically itemized in the budget, justified in the proposal, and detailed and documented in the invoice. Direct costs may include the following: tuition, project materials & supplies, publication costs and travel expense.

Tuition:

Each research organization will provide the NJDOT Bureau of Research with their negotiated indirect cost, fringe benefit and tuition schedule annually by September 1. The document must contain sufficient detail to identify what items are included and not included in these schedules.

Tuition, which is part of the compensation package for graduate students only, is allowable as part of or in lieu of salary based on 12 credit hours. If this tuition is included in the budget under direct cost it can not be included in the fringe or indirect cost rate.

Project Materials and Supplies:

Indicate in general terms the type of expendable materials and supplies required to support the needs of the project along with their estimated costs. A detailed breakdown can be listed on the budget worksheet and explanation page. General-purpose office supplies are not to be included in this category as they are covered by indirect costs.

Publication Costs:

Funds may be requested for the costs of preparing, publishing or otherwise making available the findings and products of the work conducted under the research project, including costs of reports, reprints, page charges, journal costs and training materials.

Travel:

The purpose of the travel should be adequately justified on the budget explanation page. Travel expenses must adhere to the State of NJ circular letter 00-10-OMB & Federal Travel Regulations (<http://www.state.nj.us/infobank/circular/circindx.htm>) in order to qualify for reimbursement. Note: Allowable per diem rate is based on travel locations. Proposed travel should include number of trips planned, number of persons for each trip, conference name, location, purpose and cost. Economy or lowest available fare class must be utilized. All travel except to NJDOT for required meetings requires prior approval in writing from the Manager, Bureau of Research or designee. Company or personal vehicle mileage should include the estimated number of trips, the round trip mileage and be limited to the current State of NJ rate.

Meal reimbursement for meetings at NJDOT offices is unallowable. The trip must be in excess of 10 hours to allow meal reimbursement.

Estimated travel costs should be broken into the following subcategories:
Transportation (airfare, mileage and/or automobile rental expenses);
Subsistence (per diem and hotel expenses) Foreign travel must be budgeted separately

Special Note:

The " Fly America Act " requires that travel to any foreign country (including Canada and Mexico) must take place on a U.S. flag carrier, if available (even if foreign carrier is less expensive). A U.S. flag air carrier is defined as "an air carrier holding a certificate under section 401 of the Federal Aviation Act of 1958 Foreign air carriers operating under permits are excluded."

Other Direct Costs:

Other direct costs include capital equipment, consultant services, computer services, long distance telephone/fax and subcontracts. The following paragraphs explain the most common other direct costs.

Capital Equipment:

Capital Equipment is defined as an item of property having an acquisition cost of \$1,000 or more and a useful life of one or more years. Any major equipment purchase (over \$1,000) must be listed separately in the budget. The need for the equipment should be adequately justified on the budget explanation page in the proposal or in the request for a contract modification. General-purpose equipment, such as computer equipment, is not eligible for support unless primarily or exclusively used in the actual conduct of scientific research germane to the research study. Other equipment (over \$1,000) not specified in the project budget shall be pre-approved in writing by the Manager, Bureau of Research or designee.

Equipment Rental or Lease:

Specialized equipment may be rented if its rental rates and costs are included in the estimate portion of the research proposal.

Consortium or Contractual Costs:

A cost breakout should be accompanied by the signed authorization for the collaborating institution(s), and submitted to the Bureau of Research along with the complete proposal transmittal materials. Subject to award action, the research organization, as the prime awardee, will issue a subcontract document to the collaborating institution(s). Subcontract costs in excess of the first \$25,000 are not charged indirect costs

Subcontract:

Consultant costs: Defined as non-institutional employees retained for a short duration of time for their expertise. Typically, consultants are paid a cost plus fixed fee (CPFF), per federal guidelines; otherwise, an appropriate fee for a limited term of service commensurate with the market or specialty. Work to be performed by a subcontractor who is not a subconsultant and who is not a "professional" as defined by N.J. statutes 45:8-28, shall be submitted on the basis of estimates by three different firms/individuals for work to be subcontracted as delineated in the proposal. If the subconsultant is a professional as defined by N.J.45:8-28 they must be cost basis approved.

At a minimum, adequate accounting systems provide for:

- detailed budget preparation with proposed costs based on actual historical cost data
- identification of costs (budgeted costs and actual expenses) by project/grant;
- identification of costs as direct, indirect, and unallowable;
- complete and accurate financial reports (including balance sheets and income statements); and
- maintenance of adequate source documentation (purchase orders, invoices, canceled checks, etc.).

See (<http://www.state.nj.us/transportation/framed/finance/prequali.htm>)

Modified Total Direct Cost:

Modified total direct cost(MTDC), is comprised of salaries and wages, fringe benefits, materials and supplies, services, travel, and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract.

Equipment; capital expenditures, charges for tuition remission, rental costs, scholarships and fellowships and the portion of subgrants and subcontracts in excess of \$25,000 are excluded from MTDC.

Overhead/Indirect Costs:

Each research organization will provide the NJDOT Bureau of Research with their negotiated indirect cost, fringe benefit and tuition schedule annually by September 1. The document must contain sufficient detail to identify what items are included and not included in these schedules.

The indirect cost schedule must include the on and off campus rates.*

Overhead/Indirect Costs are calculated according to the Indirect Cost Rate Agreement for the research organization negotiated with the cognizant federal audit agency. The appropriate indirect cost rate is applied to the modified total direct cost (MTDC) base.

*Activities conducted outside University premises are considered off-campus, provided that one of the following is true and that the facility being used is not owned and operated by the University.

1. Project period - the off-campus activity covers more than 50% of the total project period.
2. Major share of expenditures - more than 50% of the project performance (total expenditure) is related to the off-campus activity.

Figure 1 - Budget

Figure 1 - Budget							
					Match		Total Match
			Total Amount	NJDOT Share	Research Organization	Other Funds	
A: Name of Principal Professional or Support Classification							
Staff Time and Wages	(period of time)	(# of Hours)					
1. Professor A							
2. Professor B							
3. Graduate Student							
4. Student -hourly							
5. Staff Support							
Subtotal							
B: Fringe Benefit rates (%)							
A1 %							
A2 %							
A3 %							
A4 %							
A5 %							
Subtotal							
C: Direct Costs							
Tuition							
Project Materials &Supplies							
Publication costs							
Travel expenses							
Subtotal							
D: Other Direct Costs:							
Capital Equipment							
Subcontract Total: Details on next page							
Subtotal							
E: Modified Total Direct Cost							
Subtotal							
F: Overhead/Indirect Costs (rate)							
Subtotal							
Total Costs							

Other lines may be added as necessary

Figure 2 - For-Profit Subcontract Details

Salary/Wages	
Direct Cost	
Other Direct Cost:	
Equipment	
Subcontractor	
Overhead	
Fringe Benefit	
General and Administrative	
Profit - Negotiated Fixed Fee*	
Interim overhead Rate	

*** Only for contracts with commercial organizations**

For University OMB Cir A-110 & A21 see above

For Non Profit A-122 see above

For State Or Local Indian OMB cir A87 see above

For Cost Proposals for Commercial organization Far 48-CFR part 31 subpart 31.2

At a minimum, adequate accounting systems provide for:

- Detailed budget preparation with proposed costs based on actual historical cost data
- identification of costs (budgeted costs and actual expenses) by project/grant;
- identification of costs as direct, indirect, and unallowable;
- complete and accurate financial reports (including balance sheets and income statements); and
- maintenance of adequate source documentation (purchase orders, invoices, canceled checks, etc.).

Guidelines for Invoice Preparation and Evaluation

The following are general guidelines for preparing and evaluation of invoices which are acceptable to the NJDOT. The invoice mirrors the budget on which it is based. The following outlines the specific documentation necessary for approval of project invoices. Figure 3 provides a format for the invoice summary page.

A detailed worksheet should include the following:

Salaries and Wages:

The details of the salary calculations (rate x hours) must be shown for each category on the invoice detail sheet.

Timesheets of hours worked on specific project must be supplied with the invoice.

The charges are supported by auditable labor distribution reports which reflect the actual activities of employees.

Fringe Benefit Costs:

The details of the fringe benefit calculations (salaries and wages x specific fringe benefit rate) must be shown for each category.

Direct Costs:

The direct cost itemized on the invoice sheet details are defined as follows :

Tuition: Applies only for graduate students. The back up documentation must contain a copy of the award letter.

Project Materials and Supplies: Previously approved on the proposal needs adequate source documentation (purchase orders, invoices, cancelled checks) . General purpose office supplies are not to be included in this category as they are covered by indirect costs.

Travel: The travel previously approved should be documented by the original receipts - clearly itemized on a credit card invoice page.

See Figure 4 Travel Summary

Employee expense vouchers:

Attach all cancelled receipts for transportation (Air lines, Rail, Car Rentals), lodging, and per diem (meals), tolls, taxes, parking, copy of conference brochure.

The lodging and per diem rates are location specific and limited by the State of NJ Travel Policy OMB Circular Letter #00-10-OMB

Other Direct Costs:

Equipment: A copy of the cancelled *purchase orders, invoice with serial number and cancelled check* is necessary for documentation.

Specialized Equipment: (lease or rental receipt): To document rental payments for all pieces of rented equipment, the university must retain vendor rental invoices. These invoices must indicate the vendor name and address, the equipment rented and the amount paid by the contractor.

Subcontractor Details:

A copy of the cancelled *purchase orders, invoice, cancelled check* is necessary for documentation.

Approval prior to execution is required of the Bureau of Research or designee where subcontracts will provide research data.

After the contract is fully executed, additional subcontracting or additional specialized services must have the written approval of the Bureau of Research or designee.

Modified Total Direct Cost:

Modified total direct cost, or MTDC , is comprised of salaries and wages, fringe benefits, materials and supplies, services , travel, and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract.

Equipment; capital expenditures, charges for tuition remission, rental costs, scholarships and fellowships and the portion of subgrants and subcontracts in excess of \$25,000 are excluded from MTDC.

Indirect Cost rate:

The total indirect cost is calculated based on the negotiated indirect cost rate and the MTDC. The current indirect cost rate is applied to charges incurred during the budget period. The rate, expressed as a percentage of a base amount ([*MTDC*](#)), established by negotiation with the cognizant federal agency on the basis of the institution's projected costs for the year and distributed as prescribed in [OMB Circular A-21](#). Indirect costs are applied to a [modified total direct cost \(MTDC\)](#) base. The indirect cost rate is charged on a set of direct costs known as an indirect cost base.

Figure 3 – Invoice Summary Page

	Budget	This Period	To Date
A: Salary and Wages			
Staff Time and Wages			
1. Professor A			
2. Professor B			
3. Graduate Student			
4. Student			
5. Staff Support			
Subtotal			
B: Fringe Benefit rates (%)			
A1 %			
A2 %			
A3 %			
A4%			
A5%			
Subtotal			
C: Direct Costs			
Tuition			
Project materials and supplies			
Publication cost			
Travel			
Subtotal			
D: Other Direct Costs:			
Capital Equipment			
Subcontract see Figure 2			
Subtotal			
E: Modified Total Direct Cost			
Subtotal			
F: Overhead/Indirect Costs			
Subtotal			
Totals			

Statement No.

Name _____ Emp # _____ From _____
 SSN _____ Position _____
 Department _____ Manager _____ To _____

	Date	Date	Date	Date	Date	Date	Date		TOTAL
Transportation:				AMOUNTS					
Air Rail Rental Car Bus Subway Lodging Meals Other(specify)								<u>A copy of the cancelled <i>purchase orders, invoice, cancelled check</i> is necessary for documentation.</u>	
								Sub Total	
			Reimbursement					Subtract Advances	
Current mileage reimbursement rate is \$.25			TOTAL						

15

REFERENCES

<http://www.access.gpo.gov/nara/cfr/waisidx/49cfr800.html>

CFR 49 Transportation Part 18& 19

<http://www.whitehouse.gov/OMB/circulars/index-education.html>

Circular No. A-21 Office of Management and Budget., *Cost Principles for Educational Institutions*. Washington: GPO, Revised May 8 1996.

Circular No. A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations..* Washington: GPO, effective Dec.29,1993 for federal agencies.

Circular No. A- 133, *Audits of State local Governments,and Nonprofit Organizations*. Washington: GPO, Issued June 30 ,1997.

Circular No. A-122 *Cost Principles for Nonprofit Organizations Effective on June 1,1998.*

<http://www.whitehouse.gov/OMB/circulars/a087/a087-all.html>

Circular No. *A-87 Cost Principals for State, Local and Indian Tribal Governments*

<http://www.arnet.gov/far/loadmain.html>

FAR,48 CRF part 31,subpart 31.2 Contracts with Commercial Organizations

http://www.access.gpo.gov/nara/cfr/waisidx_99/23cfr420_99.html

Title 23--Highways

Chapter I--Federal Highway Administration, Department Of Transportation

Part 420--Planning And Research Program Administration